AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1.   (Currently Amended) A method for determining when a moving, airborne mobile platform will enter or exit at least one satellite coverage region, said method comprising:

determining a plurality of boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region;

monitoring a position of the mobile platform and an altitude of the mobile platform as the mobile platform moves along a travel path; and

determining the proximity of the mobile platform to the satellite coverage region perimeter, taking into account a current latitude, longitude and altitude of the mobile platform.

2.   (Cancelled)

3.   (Original) The method of Claim 1, wherein the method further comprises storing the boundary coordinates in a database accessible by a server system on board the mobile platform.

4.   (Currently Amended) The method of Claim [[1]] 3, wherein said storing the boundary coordinates comprises at least one of:

storing the coordinates in a look up table; and

storing the coordinates in a link list.

5.   (Currently Amended) The method of Claim 1, wherein said monitoring a position of the mobile platform comprises periodically determining at least two of a latitude, a longitude and an altitude of the mobile platform as the mobile platform moves along the travel path.

6.   (Currently Amended) The method of Claim 1, wherein said determining the proximity of the mobile platform to the satellite coverage region perimeter comprises periodically comparing the position of the mobile platform to the boundary coordinates.

7.   (Currently Amended) The method of Claim 1, wherein the method further comprises determining a time-to-perimeter measurement of the mobile platform to indicated indicate an approximate time that the mobile platform will remain within the satellite coverage region.

8.   (Currently Amended) The method of Claim 1, wherein the method further comprises determining a time-to-perimeter measurement of the mobile platform to indicated indicate an approximate time before the mobile platform will enter the satellite coverage region.

9.   (Original) The method of Claim 1, wherein the method further comprises mapping a plurality of signal strength data for the satellite coverage region.

10.   (Original) The method of Claim 9, wherein the method further comprises:

identifying signal fade areas within the satellite coverage region utilizing the signal strength data; and

determining the proximity of the mobile platform to the fade area.

11.   (Original) The method of Claim 9, wherein the method further comprise:

identifying an edge effect area within the satellite coverage region utilizing the signal strength data; and

determining the proximity of the mobile platform to the edge effect area.

12.   (Currently Amended) A system for determining when a moving, airborne mobile platform will enter or exit at least one satellite coverage region, said system comprising:

a database adapted to store boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region perimeter;

a navigational system on board the mobile platform adapted to monitor a position and an altitude of the mobile platform as the mobile platform moves along a travel path; and

an on board server system adapted to:

communicate with the database and the navigational system; and

to determine the proximity of the mobile platform to the satellite coverage region perimeter.

13.   (Original) The system of Claim 12, wherein the database includes at least one of a look up table and a link list.

14.   (Original) The system of Claim 12, wherein to determine the proximity of the mobile platform to the satellite coverage region perimeter, the on board server is further adapted to periodically compare the position of the mobile platform to the boundary coordinates.

15.   (Currently Amended) The system of Claim 12, wherein the on board server is further adapted to determine a time-to-perimeter measurement of the mobile platform to ~~indicated~~ <u>indicate</u> an approximate time that the mobile platform will remain within the satellite coverage region.

16.   (Currently Amended) The system of Claim 12, wherein the on board server is further adapted to determine a time-to-perimeter measurement of the mobile platform to ~~indicated~~ <u>indicate</u> an approximate time before the mobile platform will enter the satellite coverage region.

17.   (Original) The system of Claim 12, wherein the on board server is further adapted to:

map a plurality of signal strength data throughout the satellite coverage region;

identify a fade area within the satellite coverage region where the signal strength is significantly weaker than an average signal strength throughout the satellite coverage region; and

determine the proximity of the mobile platform to the fade area.

18.   (Currently Amended) A method for determining an approximate time of arrival of [[a]] an airborne mobile platform at one or more satellite coverage area boundaries, said method comprising:

determining a plurality of boundary coordinates that define a satellite coverage region perimeter, the boundary coordinates taking into consideration latitude, longitude and altitude to define a three dimensional spatial volume defined by the satellite coverage region;

storing the boundary coordinates in a database accessible by a server system on board the mobile platform;

monitoring a position and an altitude of the mobile platform as the mobile platform moves along a travel path;

determining the proximity of the mobile platform to the satellite coverage region perimeter; and

determining a time-to-boundary measurement of the mobile platform to indicated indicate an approximate time until the mobile platform will arrive at the satellite coverage area boundary.

19.   (Cancelled)

20.   (Original) The method of Claim 18, wherein storing the coordinates in a database comprises at least one of:

storing the coordinates in a look up table; and

storing the coordinates in a link list.

21.   (Currently Amended) The method of Claim 18, wherein monitoring a position of the mobile platform comprises periodically determining ~~at least two of~~ a latitude, a longitude and an altitude of the mobile platform as the mobile platform moves along the travel path.

22.   (Original) The method of Claim 18, wherein determining the proximity of the mobile platform to the satellite coverage region perimeter comprises periodically comparing the position of the mobile platform to the boundary coordinates.

23.   (Original) The method of Claim 18, wherein the method further comprises mapping a plurality of signal strength data for the satellite coverage region.

24.   (Original) The method of Claim 23, wherein the method further comprises:

identifying signal fade areas within the satellite coverage region utilizing the signal strength data; and

determining the proximity of the mobile platform to the fade area.

25.   (Original) The method of Claim 23, wherein the method further comprise:

identifying an edge effect area within the satellite coverage region utilizing the signal strength data; and

determining the proximity of the mobile platform to the edge effect area.